



# **TECH NOTE**

VICON TECHNICAL SERVICES GROUP

**Subject:** Saving Memory Image Files  
**Product:** All VPS Systems  
**Number:** 1400-0001-12-02  
**Date:** 06/20/08

## **Saving Image Files Using HyperTerminal®**

This Field Note details the procedure for configuration of an MS Windows® 95/98 based computer using HyperTerminal® to connect to a Vicon Programmable System thereby allowing Image File storage and restoration.

### **Section A – Connection to a Vicon Programmable System CPU**

Using a four conductor, 22awg, overall shielded cable, and appropriate connectors, fabricate an interconnect cable according to the following table:

VPS System		Host Computer	
RS-232 Port		9-Pin	25 Pin
Pin	Signal Name	Connector	Connector
1	Not Used	-	-
2	TxD	2	3
3	RxD	3	2
4	RTS	8	5
5	CTS	7	4
6	Not Used	-	-
7	Ground	5	7
8	Not Used	-	-
9	Not Used	-	-

Note: Port pinouts are the same for the VPS1300 (V1300X-SV, J7); VPS1344, J1; VPS328, J6; V1422, J6; and VPS1466, J1.

### **Section B - Configuration:**

1. From Windows Desktop, click on “Start” and select “Programs”, “Accessories”, and click on “HyperTerminal”.
2. Double click on the “HyperTerminal” icon.
3. At the “New Connection – HyperTerminal” screen, click on “File” and “New Connection”.
4. Enter the name of the new connection – Com Port, VPS, or similar. Select an icon of your choice and click “OK”.
5. At the Phone Number dialog box, click on the drop down arrow for the “Connect Using” line. Select “Direct to Com 1” (or Com 2 if your system requires) and click on “OK”. On most notebook computers, the single DB-9 connector is Com 1.
6. In the Com 1 Properties dialog box, set Bits Per Second to a baud rate matching the VPS Host Port baud rate, Data Bits to “8”, Parity to “None”, Stop Bits to “1”, and Flow Control to “Hardware”. Click on “OK”.
7. At The taskbar, click on “File”, “Properties”.
8. Click on the “Settings” tab, set “Emulation” to “Auto Detect” and click on “ASCII Setup”.

9. Under "ASCII Sending", place a checkmark next to "Echo typed characters locally".
10. Under "ASCII Receiving" place checkmarks next to "Append line feeds to incoming line ends" and "Wrap lines that exceed terminal width". Click "OK".
11. At the Properties "Settings" tab, click "OK".
12. At the taskbar, click on "File" and "Exit".
13. Click on "Yes" to the question "Do you want to disconnect now?".
14. Click on "Yes" to the question "Do you want to save session XXX?".

**Note: Some VPS systems use Odd or Even Parity for RS232 communications to or from the host computer. When transferring files using this Tech Note, insure that Parity is DISABLED, both in the VPS Host Port Settings and in the computer comm port settings.**

### **Section C – Downloading and Saving an Image File:**

A complete Image File of a Vicon VPS CPU may be made using Hyperterminal®. Two Image Files are saved, the first being the Global memory and the second being the Time-Date-Title information. Once saved in this format, the information is stored for backup purposes only; it may not be manipulated or changed in this state.

The ASCII commands for this procedure are:

- r1      Send Global configuration to the host computer
- r3      Send T-D-T configuration to the host computer

1. Connect to the VPS as outlined above.
2. Type the following to test communications (*Note: do not insert spaces between the commands; spaces are shown for clarity only*):  
Ctrl A t Enter

The VPS will respond by sending the current time and date to the host computer along with a Dollar (\$) sign.

3. Saving the Global memory.
  - a. Type the following command:    Ctrl A r1 Enter
  - b. At the taskbar, click on "Transfer", "Receive File".
  - c. Click on the drop-down menu "Use Receiving Protocol" and select "Xmodem".
  - d. Click "Receive".
  - e. Enter a file name, such as VPS or something else which identifies the system and assign the file extension ".mem".
  - f. The file should start transferring. The transfer activity will be displayed on the host computer and also on the VPS Status Display monitor.
  - g. When the transfer is completed, follow the VPS Status Display on-screen instructions.
4. Saving the T-D-T information:  
Use the same sequence as C.3 above, with the following exceptions:
  - Step a. Type Ctrl A r3 Enter
  - Step e. Use file extension .tdt

### **Section D – Uploading and Restoring an Image File:**

The ASCII commands for this procedure are:

- r2      Receive Global configuration from the host computer

r4      Receive T-D-T configuration from the host computer

1. Restoring the Global Memory information.
  - a. Type the following command:    Ctrl A   r2   Enter
  - b. At the taskbar, click on "Transfer", "Send File".
  - c. Click on Browse and double click on the Global Memory file name selected in 3e above. Click on the drop-down menu "Use Send Protocol" and select "Xmodem".
  - d. Click "Send".
  - e. The file should start transferring. The transfer activity will be displayed on the host computer and also on the VPS Status Display monitor.
  - f. When the transfer is completed, follow the VPS Status Display on-screen instructions.
2. Restoring the T-D-T information.

Use the same sequence as D.1 above, with the following exceptions:

Step a. Type Ctrl A   r4   Enter

Step c. Click on Browse and double click on the T-D-T file name selected in 5c above. Click on the drop-down menu "Use Send Protocol" and select "Xmodem".

Associated manuals:

VPS1300, VPS1344:    X788    Host Computer Interface Software for VPS1300 and VPS1344  
Microcomputer-Based Control Systems

V1422                    X678    V1422 Host Computer Interface Software

VPS1466                X912    VPS1466 Host Computer Interface Software

Note: The VPS328 is the predecessor to the V1422 and both are identical in RS-232 operation.